Brooks, Laura

From: Serreze, Susan
Sent: Thursday, July 28, 2005 9:28 AM
To: Rellergert, Carla; Brooks, Laura; Wiemelt, Karen
Subject: FW: N&E Soil Contamination

N&E Soil
Contamination

-----Original Message-----
From: Ainscough, Harlen
Sent: Thursday, July 28, 2005 9:21 AM
To: Serreze, Susan
Subject: Fwd: N&E Soil Contamination

ADMIN RECORD

1/4

Brooks, Laura

From: Ainscough, Harlen
Sent: Wednesday, July 27, 2005 11:29 AM
To: Spreng, Carl; David Kruchek
Cc: Ainscough, Harlen
Subject: N&E Soil Contamination

Nature&Extent Soil Contaminati...

We committed to discussing these tomorrow also.

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Colorado Department of Public Health and Environment

Hazardous Materials & Waste Management Division

Comments

Draft
Nature and Extent of Soil Contamination
Summary Report
for
RFETS

June 30 2005

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General Comment:

1. It is unclear why Americium-241 and Plutonium-239/240 in soils from 0.5-3.0 feet are considered to be subsurface soils, rather than surface soils, and correspondingly are screened as AOIs against the less stringent subsurface WRW PRGs. Under the RFCA Modifications, Attachment 5 of May 2003, the interval is considered to be surface soil with WRW action levels of 76 and 50 pCi/g. Thus, the WRW PRG screening thresholds of 88.4 and 112 thresholds are inconsistent with what the public considers significant relative to the action levels. If there is a need to distinguish the nature and extent of contamination technically from the RFCA protocol, that need must be clearly communicated to the regulators and the public. Accordingly, it may also become necessary to show residual nature and extent of Am/Pu contamination relative to RFCA as a secondary objective.

2. Pending the response to Comment No 1, including the 0.5-3.0 increment in Table 4 and thus subject to the 7.69 and 9.80 surface WRW PRGs would yield a greater number of AOIs to be carried forward to the Fate and Transport Section of the RI/FS Report. (Doing so would be expected to increase the frequency of occurrences above the PRGs and above 10x PRGs.) Since the RFCA surface soil action levels for Am and Pu are not specifically associated with protection of surface water, the Division does not advocate those levels to be an appropriate substitute in AOI Screen 2.0

Specific Comments:

3. **Section 1.0:** Specifically, explain why WRW levels of any kind are appropriate to use as a screening tool for transport and fate modeling. If such remains appropriate, please summarize why WRW PRGs, not WRW Soil Action Levels, were chosen as AOI Screen 2 levels and include the principal factors that make the WRW PRGs for surface soil and subsurface soil different.

4. **Section 3.0:** In the fourth paragraph of the section, reference to the 10,000 subsurface soil samples at depth interval 0.5-3.0 feet do not distinguish from Am and Pu "surface" samples of the same interval. Please address.

5. **Section 4.2:** Please explain how the exposure scenario differential at eight feet resulted in different WRW PRGs for 0.0-0.5 feet and 0.5+ feet. Since Tables 4 and 5 are based on the 0.5-foot depth, the discussion should revolve around those facts more so than a depth of eight feet.

6. **Section 4.4:** The flow of the narratives could be simplified and improved by expanding the table, and subsequent tables, to include the number and percentage of exceedances. The current format

congests and detracts from the narratives. It would better to refer to exceedances of the 10x WRW only when such occurred; the tables already show when a constituent is less than 10x.

7. **Section 5.2.1, Chromium:** Using the ChemRisk report to support process knowledge on the extent of use of metals, etc. is appropriate. However, this report has its own screening process and the ChemRisk report's protocols for determining "off-site releases" should have no impact on whether a constituent is carried forward.

8. **Section 5.3.1:** The heading of the first column in the table, and in subsequent tables, should be made consistent with the table in Section 4.5.

9. **Section 5.3.1.3, Benzo(a)pyrene:** "Two locations are co-located with three...." is not actually possible. Please revise.

10. **Section 5.3.1.6:** Please add a discussion of those constituents that exceed 10x WRW (10^{-5} risk) levels in this and subsequent summary sub-sections.

11. **Section 5.3.4.3:** Using this sub-section as an example, please be specific, i.e. identify the IHSS PAC, etc., where the constituent was located, or from which it was sourced. If this was IHSS 118.1, as suspected, it is important to identify it so the regulators and the public can relate it to something specific within the IA.

12. **Table 1 and 2:** Data are missing from the tables, please address.

13. **Table 3:** Data Summary Reports should be noted along with Closeout Reports for evidence of contamination or the references to Closeout Reports should be eliminated. Occurrences above the WRW, but less than three times the WRW of non-radionuclide constituents in surface soils, generally did not prompt a soil removal action or a Closeout Report. Referencing the frequency and number of detections above the WRW should be sufficient, even for the ubiquitous constituents.

14. **Figure 4:** Using Figure 4 as an example, co-located triangles are virtually impossible to distinguish under the squares. Please address.

15. **Figure 5:** It is unclear how this figure based on soil above or below a depth of eight feet results in different WRW PRGs above and below 0.5 feet. See footnote "c" and AOI Screen 2 of Tables 4 and 5.